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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,758	03/24/2004	Vincent J. Zimmer	Intel/18680	4295

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EXAMINER	
BONURA, TIMOTHY M	
ART UNIT	**PAPER NUMBER**
2114	

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05/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/807,758	ZIMMER ET AL.	
	Examiner	Art Unit	
	Tim Bonura	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 May 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

- **Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Rasmussen, U.S. Patent Number 6,640,334.**

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Rasmussen, U.S. Patent Number 6,640,334.

3. Regarding claim 1:

a. Regarding the limitation of "receiving in an operating system runtime environment a firmware code update to be implemented in a multiprocessor system; storing the firmware code update," Rasmussen discloses a system for receiving and executing a flash memory shell routine for updating. (Lines 56-60 of Column 8). Rasmussen discloses that the routine for updating can occur on communication devices on a network (Lines 23-27 of Column 3).

b. Regarding the limitation of "issuing an inter-processor interrupt to each processor of the multiprocessor system; storing state information for each processor of the multiprocessor system," Rasmussen discloses a system that temporarily suspends

ongoing processes so that a flash update can take place. The temporarily suspension occurs without termination processes. (Lines 60-67 of Column 8).

c. Regarding the limitation of "transitioning from the operating system runtime environment to a pre-operating system environment," Rasmussen discloses a system with an inactive and active page in the Flash ROM for updating the flash ROM. The inactive page is part of a shell routine that is used for updating. (Lines 1-16 of Column 9).

4. Regarding claim 2:

d. Regarding the limitation of "implementing the firmware code update in the pre-operating system environment," Rasmussen discloses a system with a firmware code update to a Flash ROM. (Lines 46-48 of Column 3).

e. Regarding the limitation of "reading the state information for each processor of the multiprocessor system; restoring the state information to each processor of the multiprocessor system, thereby transitioning from the pre-operating system environment to the operating system runtime environment," Rasmussen discloses a system wherein the device that was updated is rebooted without and disruption to the device communications or the session of the user. (Lines 48-53 of Column 4).

5. Regarding claim 3, Rasmussen discloses a system with the ability for an automatic reboot that is quick and not interrupt general communications. (Lines 44-48 of Column 4). Rasmussen also discloses a system with a first and second portion of the Flash ROM to store the update to the flash memory. (Lines 5-13 of Column 4).

6. Regarding claim 4, Rasmussen discloses a system with a check-sum for integrity checking. (Lines 5-15 of Column 7).

7. Regarding claim 5, Rasmussen also discloses a system with a first and second portion of the Flash ROM to store the update to the flash memory. (Lines 5-13 of Column 4).

8. Regarding claim 6:

f. Regarding the limitation of "receiving in an operating system runtime environment a firmware code update to be implemented in a multiprocessor system; storing the firmware code update," Rasmussen discloses a system for receiving and executing a flash memory shell routine for updating. (Lines 56-60 of Column 8). Rasmussen discloses that the routine for updating can occur on communication devices on a network (Lines 23-27 of Column 3).

g. Regarding the limitation of "issuing an inter-processor interrupt to each processor of the multiprocessor system; storing state information for each processor of the multiprocessor system," Rasmussen discloses a system that temporarily suspends ongoing processes so that a flash update can take place. The temporarily suspension occurs without termination processes. (Lines 60-67 of Column 8).

h. Regarding the limitation of "transitioning from the operating system runtime environment to a pre-operating system environment," Rasmussen discloses a system with an inactive and active page in the Flash ROM for updating the flash ROM. The inactive page is part of a shell routine that is used for updating. (Lines 1-16 of Column 9).

9. Regarding claim 7:

i. Regarding the limitation of "implementing the firmware code update in the pre-operating system environment," Rasmussen discloses a system with a firmware code update to a Flash ROM. (Lines 46-48 of Column 3).

j. Regarding the limitation of "reading the state information for each processor of the multiprocessor system; restoring the state information to each processor of the multiprocessor system, thereby transitioning from the pre-operating system environment to the operating system runtime environment," Rasmussen discloses a system wherein the device that was updated is rebooted without and disruption to the device communications or the session of the user. (Lines 48-53 of Column 4).

10. Regarding claim 8, Rasmussen discloses a system with the ability for an automatic reboot that is quick and not interrupt general communications. (Lines 44-48 of Column 4). Rasmussen also discloses a system with a first and second portion of the Flash ROM to store the update to the flash memory. (Lines 5-13 of Column 4).

11. Regarding claim 9, Rasmussen discloses a system with a check-sum for integrity checking. (Lines 5-15 of Column 7).

12. Regarding claim 10, Rasmussen also discloses a system with a first and second portion of the Flash ROM to store the update to the flash memory. (Lines 5-13 of Column 4).

13. Regarding claim 11:

k. Regarding the limitation of "receiving in an operating system runtime environment a firmware code update to be implemented in a multiprocessor system; storing the firmware code update," Rasmussen discloses a system for receiving and executing a flash memory shell routine for updating. (Lines 56-60 of Column 8). Rasmussen discloses that the routine for updating can occur on communication devices on a network (Lines 23-27 of Column 3).

l. Regarding the limitation of "issuing an inter-processor interrupt to each processor of the multiprocessor system; storing state information for each processor of the multiprocessor system," Rasmussen discloses a system that temporarily suspends

ongoing processes so that a flash update can take place. The temporarily suspension occurs without termination processes. (Lines 60-67 of Column 8).

m. Regarding the limitation of "transitioning from the operating system runtime environment to a pre-operating system environment," Rasmussen discloses a system with an inactive and active page in the Flash ROM for updating the flash ROM. The inactive page is part of a shell routine that is used for updating. (Lines 1-16 of Column 9).

n. Regarding the limitation of "implementing the firmware code update in the pre-operating system environment," Rasmussen discloses a system with a firmware code update to a Flash ROM. (Lines 46-48 of Column 3).

o. Regarding the limitation of "reading the state information for each processor of the multiprocessor system; restoring the state information to each processor of the multiprocessor system, thereby transitioning from the pre-operating system environment to the operating system runtime environment," Rasmussen discloses a system wherein the device that was updated is rebooted without and disruption to the device communications or the session of the user. (Lines 48-53 of Column 4).

p. Regarding the limitation of "determining if a warm start has been requested," Rasmussen discloses a system with the ability for an automatic reboot that is quick and not interrupt general communications. (Lines 44-48 of Column 4).

q. Regarding the limitation of "reading the firmware code update from the first defined storage location," Rasmussen also discloses a system with a first and second portion of the Flash ROM to store the update to the flash memory. (Lines 5-13 of Column 4).

14. Regarding claim 12, Rasmussen discloses a system wherein the transition between shell routine state and operation state is a reboot. (Lines 44-48 of Column 4).

15. Regarding claim 13, Rasmussen discloses a system with a check-sum for integrity checking. (Lines 5-15 of Column 7).

16. Regarding claim 14, Rasmussen discloses a system that downloads the updates from a network. (Lines 35-45 of Column 3).

17. Regarding claim 15, Rasmussen also discloses a system with a first and second portion of the Flash ROM to store the update to the flash memory. (Lines 5-13 of Column 4).

18. Regarding claim 16:

r. Regarding the limitation of "receiving in an operating system runtime environment a firmware code update to be implemented in a multiprocessor system; storing the firmware code update," Rasmussen discloses a system for receiving and executing a flash memory shell routine for updating. (Lines 56-60 of Column 8). Rasmussen discloses that the routine for updating can occur on communication devices on a network (Lines 23-27 of Column 3).

s. Regarding the limitation of "issuing an inter-processor interrupt to each processor of the multiprocessor system; storing state information for each processor of the multiprocessor system," Rasmussen discloses a system that temporarily suspends ongoing processes so that a flash update can take place. The temporarily suspension occurs without termination processes. (Lines 60-67 of Column 8).

t. Regarding the limitation of "transitioning from the operating system runtime environment to a pre-operating system environment," Rasmussen discloses a system with an inactive and active page in the Flash ROM for updating the flash ROM. The

inactive page is part of a shell routine that is used for updating. (Lines 1-16 of Column 9).

u. Regarding the limitation of "implementing the firmware code update in the pre-operating system environment," Rasmussen discloses a system with a firmware code update to a Flash ROM. (Lines 46-48 of Column 3).

v. Regarding the limitation of "reading the state information for each processor of the multiprocessor system; restoring the state information to each processor of the multiprocessor system, thereby transitioning from the pre-operating system environment to the operating system runtime environment," Rasmussen discloses a system wherein the device that was updated is rebooted without and disruption to the device communications or the session of the user. (Lines 48-53 of Column 4).

w. Regarding the limitation of "determining if a warm start has been requested," Rasmussen discloses a system with the ability for an automatic reboot that is quick and not interrupt general communications. (Lines 44-48 of Column 4).

x. Regarding the limitation of "reading the firmware code update from the first defined storage location," Rasmussen also discloses a system with a first and second portion of the Flash ROM to store the update to the flash memory. (Lines 5-13 of Column 4).

19. Regarding claim 17, Rasmussen discloses a system wherein the transition between shell routine state and operation state is a reboot. (Lines 44-48 of Column 4).

20. Regarding claim 18, Rasmussen discloses a system with a check-sum for integrity checking. (Lines 5-15 of Column 7).

21. Regarding claim 19, Rasmussen discloses a system that downloads the updates from a network. (Lines 35-45 of Column 3).

22. Regarding claim 20, Rasmussen also discloses a system with a first and second portion of the Flash ROM to store the update to the flash memory. (Lines 5-13 of Column 4).

Response to Arguments

23. The examiner acknowledges the change in the title and thanks the applicant for a more descriptive title. The objection has been removed.

24. Applicant's arguments filed 05/07/2007 have been fully considered but they are not persuasive.

25. Regarding claim 1, the applicant argues that the prior art of record, Rasmussen, "does not describe an operating system and does not describe transitioning form the operating system runtime environment to a pre-operating system environment" (Page 10 of the response). The examiner contends that the prior art does indeed disclose both of these features.

y. The examiner contends that Rasmussen disclose that the firmware update is data for operating a communications device (which the examiner treats as a system). The prior art teaches of a firmware update saved in FLASH memory for updating the operation of the communications device. (See Column 3, lines 19-23).

z. The examiner further contends that the prior art teaches of a transitioning from a run-time environment to a pre-operating system environment. (the examiner, in the most reasonable broad interpretation views the pre-operating state as an updating state). The examiner contends Rasmussen disclose an updating state for the operation system by which the firmware update is saved into a RAM under the control of the version stored on the firmware, then is copied and loaded as the new version in the RAM. (Lines 35-45 of Column 3).

26. Regarding claims 6, 11, and 16, please refer to the response to the arguments for claim 1 above.

Conclusion

27. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

28. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

29. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tim Bonura.**

- The examiner can normally be reached on **Mon-Fri: 8:30-5:00**.
- The examiner can be reached at: **571-272-3654**.

30. If attempts to reach the examiner by telephone are unsuccessful, please contact the examiner's supervisor, **Scott Baderman.**

- The supervisor can be reached on **571-272-3644.**

31. The fax phone numbers for the organization where this application or proceeding is assigned are:

- **703-872-9306 for all patent related correspondence by FAX.**

32. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov/. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

33. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **receptionist** whose telephone number is: **571-272-2100.**

34. Responses should be mailed to:

- **Commissioner of Patents and Trademarks**

  P.O. Box 1450

  Alexandria, VA 22313-1450

tmb
May 21, 2007

SCOTT BADERMAN
SUPERVISORY PATENT EXAMINER